# ROBERT S. PEABODY FOUNDATION FOR ARCHAEOLOGY

ANNUAL REPORT 1971



Mr. Simeon Hyde, Jr. Acting Headmaster Phillips Academy Andover, Massachusetts

Dear Mr. Hyde:

This year's report shall consider the activities of 1971-72 under six main headings - education, exhibition, research, publication, administration, and other activity.

The Foundation again offered an introductory course in Anthropology as an elective for Phillips Academy seniors. The enrollment varied from term to term but averaged twenty-three The underlying theme of the course has been the evolution of man and his society. During the fall term, man's physical evolution and the races of man and their significance were The winter term was devoted to a considerathe topics studied. tion of the development of pristine prehistoric civilizations. Special emphasis was placed on the Near East, Mexico, and Peru. During the spring term the class is considering how various unique societies are organized to solve similar economic, social, and political problems. Each student becomes an "expert" on a particular society for the purpose of class discussion. This information is supplemented by ethnographic films and an occasional lecture. For the first time this year, a text has been employed. The text, also organized around the theme of evolution, provides continuity and fills in details impossible to cover in class.

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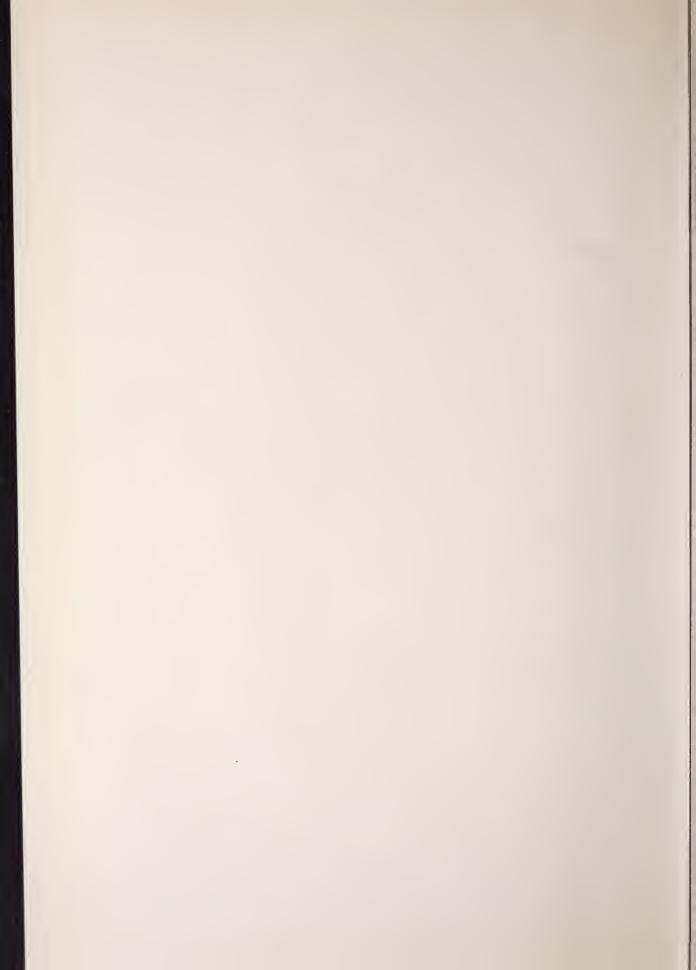
Plans for the coming school year include the inclusion of Abbot girls in the class (a maximum of 20% of the class).

In February, the Curator of the Foundation, Mr. Edward B. Sisson, organized an archaeological field trip to Mexico as a February Week Project. With some financial assistance from the Academy, three students were able to take part. The expenses of the Curator were paid by the Foundation. The group conducted archaeological survey in the mountains east of Coxcatlan, Puebla, and visited archaeological sites in the Mexico City area. In addition to enabling the students to see archaeological sites and participate in archaeological research, the trip exposed the students to various aspects of Mexican life in the cosmopolitan capital, in a provincial city and town, and in several isolated rural hamlets. One of the students in the anthropology class, Mr. William Dobbs, has been hired by the Foundation to serve as a photographer and chauffeur with the Foundation's Coxcatlan Project in the Tehuacan Valley.

In the Fall, Mr. Sisson taught a course in Middle American archaeology as part of the Andover Evening Studies Program. One member of this class also participated in the February Week trip to Mexico.

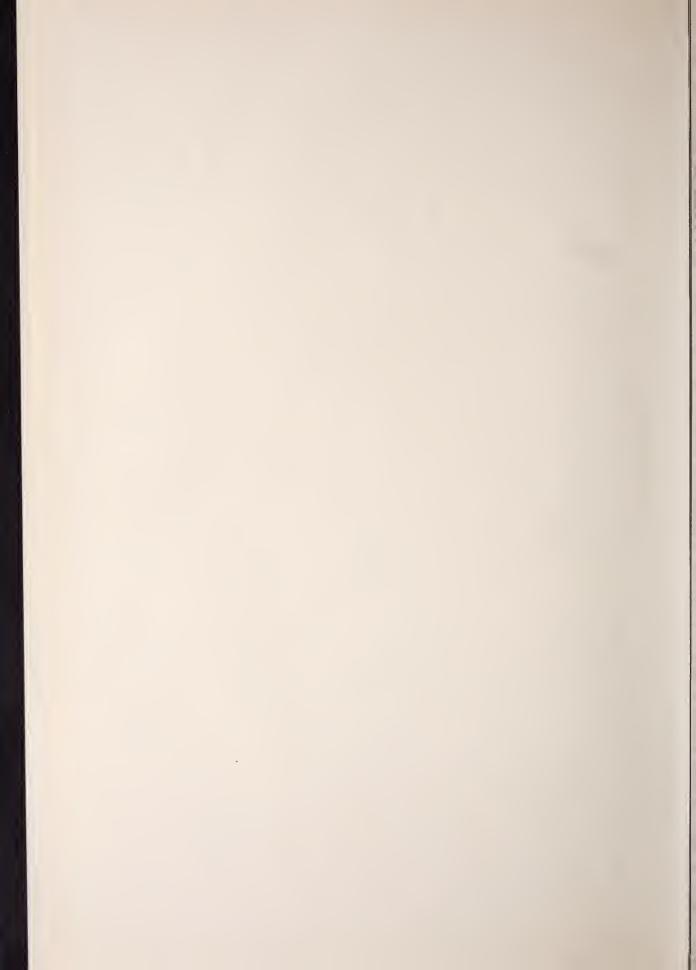
In terms of the exhibit program, under the direction of Dr. Frederick Johnson, the south room on the first floor has almost been completed. These new exhibits were designed for the purpose of making the museum more relevant to the anthropology class, to the students at Phillips Academy, and to the public at large.

The central theme of this hall is the "Evolution of Man and His Culture". The first two exhibits are concerned with the physical



evolution of man in terms of upright posture and changes in his skull. The third and fourth exhibits deal with the physical aspects of race and strongly emphasize the fact that although groups may differ in many ways, fundamentally they have equal physical and mental potential. The fifth exhibit attempts to illustrate how groups evolved differently. The sixth exhibit, on energy and culture, is still in the planning stage. The seventh and eighth show how the first civilizations evolved in the New and Old Worlds. The ninth exhibit concerns the rise of cities while the tenth, on the evolution of economic systems, is being prepared. Exhibit eleven illustrates how children and adults grow up in three different cultures, while the twelfth shows how discriminatory slogans and symbols reflect our behavior and basic value prejudices. Exhibit thirteen, now being prepared, concerns urban problems while the final exhibit coordinates the entire gallery in terms of a model of a cultural system. The north room on the second floor has seen little progress although all the basic construction is done and the exhibits designed.

Two main research projects were undertaken, one in Peru and the other in Mexico. The expedition in Peru, under the direction of Richard S. MacNeish and with a grant from the National Science Foundation, is about to begin its fourth and final season of major endeavors in the field. Early last season, two caves (Ts 500 and Tr 244) with stratified layers were excavated by Robert Vierra of the University of New Mexico and Carlos Chahud of the University of Huamanga. Gordon Hadden of the University of Wisconsin tested a mass production ceramic barrio in one of the compounds of the



huge ruin of Wari, the first capital of an Empire in South America. Later in the season, Dr. Luis Lumbreras and his students from the University of San Marcos tested seven ruins with stratified deposits giving up a complete sequence of ceramics (based on about 100,000 sherds) from 1700 B.C. to the Spanish Conquest. Other fieldwork was under the direction of Angel Garcia Cook of the Instituto Nacional de Antropologia y Historia of Mexico and consisted of carefully mapping an adequate sample (about 40) of sites from each of our eleven periods. This information completed our studies of prehistoric population, demography, and settlement patterns for the Ayacucho Valley for its 20,000 years of occupation.

However, perhaps even more of our efforts were in analysis than in fieldwork. Professor Antoinette Nelken-Terner of the National Center of Scientific Research was in charge of the laboratory, and the basic typology of more than 20,000 artifacts was completed and the attributes (over 4000) were placed on IBM cards for further computer analysis. This computer program and another one concerned with discerning the areas and kinds of cultural activities on each floor was undertaken by Robert Vierra. Further, he was attempting to set up programs to date these floors not just to the millenia or century, but to the season, even month, of the year they were occupied. He was assisted by Andrea Vierra and various local students. This project which is using the facilities of the Computer Center at the University of New Mexico is continuing. Also assisting in this program is Mr.



an expert in lithic technology. Besides these specialists, others of a more interdisciplinary nature worked with us. Dr. Kent Flannery of the Museum of Anthropology of the University of Michigan was with us twice. In his first foray, he made a complete zoological (osteological) collection of every living animal in the valley and in the second term he came to identify all archaeological bone from our sites above 9000 feet elevation. The bones from sites below 9000 feet were identified by Dr. Elizabeth Wing of the Florida State Museum. This huge collection of over 50,000 bones from a 10,000 year span will not only tell us much about ancient diets, subsistence, and hunting and trapping activities, but it will also give us basic information about the domestication of guinea pig (7000 years ago) and the llama (5000 years ago). Related to these endeavors was the identification of 1000 or so extinct animals by Dr. Brian Patterson of the Museum of Comparative Zoology of Harvard University.

Other researches were more concerned with botany. The final field collection of modern plants in the wet season as well as the final identification of preserved plant remains from our excavations was undertaken by Dr. Barbara Pickersgill of the University of Reading, England. Her studies of ancient food collecting, agriculture and the domestication of plants were supplemented by a study of the 100 or so archaeological coprolites by Dr. Vaughn Bryant of the University of Texas. Dr. Pickersgill also solicited specialized help in the identification of certain domesticates and Dr. Walton C. Galinat of the University of Massachusetts has now completed a study of our corn from a 5000 year period while



Dr. Lawrence Kaplan of the same institution is studying our archaeological beans and Dr. Thomas Whittaker of the United States

Department of Agriculture is analyzing the squash remains. Pollen studies are being undertaken by Dr. William Hopkins of the Geological Survey of Canada and Dr. Charles Schweger of the University of Alberta in conjunction with the geological studies of Dr. Nathaniel Rutter of the Geological Survey of Canada. Needless to say, further Carbon 14 analysis for dating have been undertaken by Dr. James Buckley of Isotopes, Inc., and Dr. Rainer Berger under the direction of the Nobel prize winner Dr. Willard F. Libby of UCLA.

All in all, we have found the framework of a 20,000-year sequence of history from cave men to Empire builders to the remnant population after the Empire declined. Much of it is well documented by many specimens. The data collection aspect of the project is finished (and I might add right on schedule) and the analysis is well underway and will be continuing for another couple of years. From this we should obtain further evidence on how, when, and where plants were first domesticated in South America and further hints about how and why civilizations rise and fall anywhere.

The second major research project, in Mexico, was under the direction of our Curator, Ed Sisson. The first season of this projected four-year investigation of the Postclassic/Early Colonial "city state" of Coxcatlan, Puebla, Mexico began in June of 1971. The first field season was financed by the Foundation and the National Geographic Society. Coxcatlan is located in the Tehuacan Valley and in many ways this project is an extension of the Foundation.



tion's earlier researches in the valley. While the primary focus of the earlier project was on the origin of agriculture and the rise of stable agricultural communities, the current project is primarily concerned with the sequence of events leading to the appearance of the Coxcatlan "city state" and with the possible causes for its appearance.

Supervision of the first year of fieldwork was the responsibility of the Curator of the Foundation. Four graduate students, William Doelle, Richard Peterson, Deborah Scheraga, and Pat Stein, were employed in the field and laboratory. The Curator's wife, Penny Sisson, also assisted in the laboratory.

The principal goals of the first season were to complete the site survey of the valley in the Coxcatlan area, to begin the site survey of the mountains east of Coxcatlan, to refine the relative chronology based on ceramics, and to begin the systematic mapping, surface collection, and excavation of selected sites. The only objective in which we were not completely successful was in the refining of the relative chronology. As we excavate more and have an opportunity for more detailed analysis, this goal will also be achieved.

All areas of the valley floor near Coxcatlan where no sites were recorded were resurveyed. We have now recorded all of the archaeological sites near Coxcatlan. The survey of the mountains is difficult because of the nature of the terrain and the size of the sites. A beginning was made last summer and will be followed up on in coming seasons. One large dispersed town and two hamlets were completely mapped and surface collected. The hamlets



showed little internal variation in size and sumptuousness of buildings or their contents. The town, however, appears to have been occupied by craft specialists, farmers, and administrative elite. The residence of a potter and the residence of a spinner and weaver were excavated. An elite residence complete with storage room, living rooms, kitchen, and household altar was also excavated. A sketch map was made of most of the city of Coxcatlan and many parts of the city were surface collected. In general, Coxcatlan appears to have been much richer than the large town and to have had more pronounced differences in wealth within it. Areas possibly occupied by specialists are more difficult to define in the city because of its severe destruction by recent farming activities.

North of Coxcatlan a site occupying an isolated hilltop in the center of the valley was excavated. The buildings excavated on this hilltop represent three successive stages of construction. Although analysis of the artifacts recovered have only just begun, all three building stages appear to represent structures which were ceremonial in function rather than residential.

This coming season, special attention will be devoted to the mapping of sites and to the testing of sites by excavation. The survey of the mountains will be continued. A field school for high school students and college undergraduates will be conducted in conjunction with the Foundation's research this coming season.

As important as the researches themselves is the publication of the results of the investigations. The long term (6 volumes) project of the publication of the Prehistory of Tehuacan series



continues under the editorship of Mrs. Diana Cleveland. Volume IV is now completed and should be distributed shortly by the University of Texas Press. At present, our efforts are being concentrated on Volume V. In addition to these major works by the Foundation, its members have written and have had published a number of other articles or monographs. These are listed below (and include ones of 1970 which may not have been mentioned in previous annual reports).

## PUBLICATIONS:

1970

MacNeish, Richard S.

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"Social Implications of Changes in Population and Settlement of the 12,000 Years of Prehistory in the Tehuacan Valley of Mexico", in <u>Population and Economics</u>, edited by P. Deprez, University of Manitoba Press, Winnipeg.

"The Origins of New World Civilization", in <u>Plant</u> Agriculture, Readings from Scientific American.

"The Second Annual Report of the Ayacucho-Huanta Archaeological-Botanical Project", R. S. Peabody Foundation, Andover.

"Archaeological Synthesis of the Sierra", Chapter 24, in Middle American Handbook, Vol. 10, Bureau of American Ethnology, University of Texas Press.

Book review of "The San Isidro Site an Early Man Campsite in Nuevo Leon, Mexico", by Jeremiah F. Epstein, in the University of Texas Anthropology Series, No. 7, for the Plains Anthropologist.

"Megafauna and Man from Ayacucho, Highland Peru", (co-author with Rainer Berger), in <u>Science</u>, Vol. 168, No. 3934.

"Ceramics of the Tehuacan Valley", (co-author with F. Peterson and K. Flannery), in <u>The Prehistory of the Tehuacan Valley, Vol. III</u>, published by the University of Texas Press for the R. S. Peabody Foundation.



#### PUBLICATIONS continued

MacNeish, Richard S.

"Speculations about How and Why Food Production and Village Life Developed in the Tehuacan Valley, Mexico", in Archaeology, Vol. 24, No. 4.

"La Vallee de Tehuacan (Mexique): 12,000 ans de prehistoire", (co-author with A. Nelken-Terner), in Annales, No. 6.

"Early Man in the Andes", in <u>Scientific American</u>, Vol. 224, No. 4.

Book Review of "La Ceramica de Monte Alban", by Bernal Caso, Memorias de Instituto Nacional de Antropologia e Historia XIII, Mexico, for the American Anthropologist, Vol. 73, No. 4.

"The Evolution of Community Patterns in the Tehuacan Valley of Mexico and Speculations about the Cultural Processes, London.

"Ancient Mesoamerican Civilization" in <u>Prehistoric</u>
Agriculture, edited by S. Struever, The Natural History
Press.

"Origins of Agriculture in Middle America", (co-author with P. Mangelsdorf and G. Willey), edited by S. Struever, The Natural History Press.

"Domestication of Corn", (co-author with P. Mangelsdorf and W.Galinat) in <u>Prehsitoric Agriculture</u>", edited by S. Struever, The Natural History Press.

# Sisson, Edward B.

Book review of "The Ceramic History of Santa Rosa, Chiapas, Mexico", by D. Brockington, in American Antiquity, Vol. 35, No. 4.

"Settlement Patterns and Land Use in the Northwest Chontalpa, Tabasco, Mexico: A Progress Report", in <u>Ceramica</u> de Cultura Maya, No. 6, Temple University.

"Mascara Olmeca se San Felipe", in <u>Revista de Instituto</u> Nacional de Antropologia y Historia, Vol. 40, Mexico.



## PUBLICATIONS continued

#### Johnson, Frederick

- "Reconciliation of Radiocarbon and Sidereal Years in Mesoamerican Chronology", in Radiocarbon Variations and Absolute Chronology, Proceedings of the 12th Nobel Symposium published by John Willey and Son, New York, (co-author with E. H. Willis).
- "The Chronology of Tehuacan", in the <u>Prehistory of</u> the Tehuacan Valley, Vol. 4, (co-author with R. S. MacNeish), in press.

#### Written or Submitted for Publication

## MacNeish, Richard S.

"Seasonality and Causality in the Tehuacan Valley, Mexico".

"The Origin and Spread of Domesticated Plants and Animals in Central Peru".

"Subsistence and the Rise of Civilization in Ancient Peru", (co-author with Thomas Patterson).

"An Introduction to the Study of Early Man in America", in The Earliest Americans, Freeman Press.

"Comments on the Archaeology of the Hochelaga Site", Part 6, in Cartier's Hochelaga and the Dawson Site.

"The Settlement Pattern in the Tehuacan Valley", for Volume V of the Prehistory of the Tehuacan Valley.

"The Scheduling Factor in the Development of Effective Food Production in the Tehuacan Valley".

"The Implications of the Prehistoric Sequence of Corn, Zea Mays in the Ayacucho Valley of Peru (co-author with W. Galinat).

# Sisson, Edward B.

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"Un Pueblo Postclasico del Valle de Tehuacan", submitted to el Boletin del Instituto Nacional de Antropologia y Historia.



The administration of the Foundation continues to run smoothly due in large part to the efforts of Miss Theodora George, our administrative assistant. The accounting for the National Science Foundation is completed and our books balanced. Most of the archaeological materials is catalogued. Our correspondence has been handled well and our applications for research grants have been submitted. Further, we have received adequate outside funding for our research.

## Research Grants Received:

- 1970 \$154,500.00 National Science Foundation, grant no. 2927, for investigations in Ayacucho, Peru.
- 1971 \$ 49,100.00 National Science Foundation, grant no. 2927 continuation, for analysis of Ayacucho materials.
- 1971 \$ 5,000.00 National Geographic Society, for investigations in Coxcatlan, Mexico.
- 1970-1 \$ 20,000.00 National Science Foundation for preparation of Tehuacan manuscripts.

Other activities occurred in addition to those mentioned above. Some of these are listed below:

1. Meetings invited to (with all expenses paid)

MacNeish, Richard S.

1970 Lima, Peru; London, England

1971 Belgrade, Yugoslavia; Santa Fe, New Mexico

# 2. Meetings attended

MacNeish and Sisson

- Society for American Archaeology, in Norman Oklahoma.
- American Anthropological Association, in New York City.



# 3. <u>Seminars</u> given at:

Boston University	Richard	S.	MacNeish
Harvard University (2)		1.7	
University of Massachusetts		7.7	
University of Huamanga, Peru		1.1	
Prescott College		11	

## 4. Public lectures at:

New Hampshire Archaeological Soc.	11
Merrimack Valley Arch. Soc.	1.1
University of Toronto	11
Franklin Pierce College	11
Brown University	11

Merrimack Valley Arch. Society Edward B. Sisson

## 5. Television

Participant in MGM documentary entitled <u>In Search of</u> the Lost World, April 17, 1972 - Richard S. MacNeish.

# 6. Honors received:

MacNeish, Richard S.

President, Society for American Archaeology, 1971-72.

Alfred Vincent Kidder award from the American Anthropological Association, 1971.

Honorary Distinguished Professor award from the Universidad Nacional de San Cristobal de Huamanga, Ayacucho, Peru, 1970.

All in all, the school year of 1971-72 has been a busy one and the Foundation is beginning to implement its basic policies in a more successful manner. We hope to do better in the future.

Respectfully submitted,

Richard Stockton MacNeish

Director





